UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,872	11/14/2003	Matthias Eberhard Sohn	11884/405801	1867

26646 7590 03/29/2007	EXAMINER
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	ART UNIT	PAPER NUMBER
	2193	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2007*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *3/5/07*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application .

6)☐ Other: _____.

ETAILED ACTION

1.	This action is responsive to the Applicant's response filed 1/12/07.

As indicated in Applicant's response, claims 11, 14 have been amended. Claims 1-16 are

pending in the office action.

Information Disclosure Statement

2.	The information disclosure statement filed 3/5/07 has been considered for the most part;

however, for item # 17 in the Non-Patent Literature portion, the ACM document by Levi et al.,

there no legible copy thereof. This item is marked as 'NC' as "not considered" while the rest of

the IDS has been initialed by the Examiner. The IDS has been placed in the application file and

considered, except for the information referred to therein above which has not been so. Should

the Applicant wish to have this item #17 considered, a copy submission to this effect would be

recommended. Also appreciated is that, given the increasing tendency to submit large amount of

referenced material in the IDS, the IDS be sorted (prior to submission) to filter out only those

documents that might have relevance with the claimed invention; so to alleviate the Examiner's

burden for having to deal with an unjustified quantity of unrelated subject matter, enabling

thereby proper merits to be given to matter of more weight during the process of establishing

patentatibility of the case.

Claim Rejections - 35 USC § 102

3.	The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-4, 6-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Iyengar,

USPN: 6,874,146 (hereinafter Iyengar).

As per claim 1, Iyengar discloses a method for generating a software development

repository to reflect extensions in an application framework comprising:

defining a repository framework (Fig. 1);

receiving application framework metadata (e.g. UML metamodel – col. 9, lines 1-11;

model 21 – Fig. 2, M1 – Fig. 4), the application framework metadata specified utilizing

constructs (e.g. Unified Modeling Language, UML reads on meta-level 2 – see col. 11, lines 24-

27; M2 – Fig. 4) from an application framework meta-level (M2);

transforming the application framework metadata into an intermediate representation as a

function of the application framework meta-level (M2) (e.g. col. 11, lines 19-42 – Note: XMI

and DTD derived from reading constructs of UML model reads on intermediate representation –

see Fig. 4) and a meta-level (MOF – col. 11, lines 24-27) for the application framework meta-

level (M3);

generating the software development repository (e.g. Fig. 2, 4; col. 9, line 45 to col. 10,

line 2) utilizing the intermediate representation.

As per claim 2, Iyengar discloses wherein the intermediate representation is XML

("Extensible Markup Language" – see *M2: AS XML DTDs* – Fig 4).

As per claims 3-4, Iyengar discloses wherein the software development repository

includes a database schema (DTD, Fig. 5) and an executable component, the executable

component providing at least one database service (CORBA-based software, CORBA interface -

col. 9, lines 48-56); wherein the at least one service includes object oriented access, versioning,

persistence and change management (e.g. *infrastructure services ... Corba interface repository*

... database interoperability – col. 9, lines 52-59; *XML APIs* – col. 3, lines 39-44; *object services*

12 – col. 7, lines 48-53).

As per claim 6, Iyengar discloses wherein the step of generating the software

development repository further includes the steps of generating a source file for generating an

executable component (see A METHOD FOR PROVIDING OBJECT DATABASE

INDEPENDENCE IN A PROGRAM WRITTEN USING THE C++ PROGRAMMING

LANGUAGE, *incorporated by reference* – col. 8, lines 3-45) and a script file (XML – col. 5,

lines 54-65; col. 6, lines 59-64; col. 6, lines 13-26; *incorporated by reference* – col. 8, lines 3-45

Note: creation of method invoking operations and manipulating database reads on programming

of interface invocations and SQL query script creation) for generating a database schema.

As per claim 7, Iyengar discloses a method for generating a software development

repository to reflect changes in an application framework comprising:

providing a first meta-level (M2) for representing the application framework metadata;

providing a second meta-level (M3) for representing the M2 meta-level (MOF, UML –Fig. 1;

Fig. 4);

receiving application framework metadata, the application framework metadata specified

utilizing constructs from the application framework meta-level (M2);

transforming the application framework metadata into an intermediate representation as a

function of the application framework meta-level (M2) and the second meta-level level (M3);

generating the software development repository as a function of the intermediate

representation;

all of which steps (receiving, transforming, generating) having been addressed in claim 1.

As per claims 8-10, refer to claims 2-4, respectively.

As per claim 11, Iyengar discloses an object repository generator associate with a

computer, comprising:

an interface, the computer actualizing the functionality of the interface for receiving a

meta-model specification (UML metamodel – col. 9, lines 1-11; model 21 – Fig. 2, M1 – Fig. 4);

a metadata engine, the computer actualizing the functionality of the metadata engine for

performing at least one operation on the meta-model specification including at least generating

an intermediate representation of the meta-model specification as a function of a first meta-level

(e.g. col. 11, lines 19-42 – Note: XMI and DTD derived from reading constructs of UML model

– or 1st level metadata -- reads on intermediate representation – see Fig. 4) and a second meta-

level (MOF – col. 11, lines 24-27);

a generator component, the computer actualizing the functionality of the generator

component for generating the object repository (Fig. 2, 4; col. 9, line 45 to col. 10, line 2) as a

function of the intermediate representation.

As per claim 12, Iyengar discloses wherein the meta-model specification utilizes at least

a subset of UML ("Unified Modeling Language" - col. 9, lines 1-11; model 21 – Fig. 2, M1 –

Fig. 4).

As per claim 13, refer to claim 6.

As per claim 14, Iyengar discloses an object repository generator associate with a computer system, comprising:

an interface, the computer actualizing the functionality of the interface for receiving a meta-model specification;

a metadata engine, the computer actualizing the functionality of the metadata engine for performing at least one operation on the meta-model specification including at least generating an intermediate representation of the meta-model specification as a function of a first meta-level and a second meta-level, the meta-data engine including a database for storing a plurality of versions of an object repository;

a generator component, the computer actualizing the functionality of the generator component for generating the object repository as a function of the intermediate representation.

The claim comprises all the limitations corresponding to those of claim 11, hence will incorporate the respective rejection as set forth therein.

As per claim 15, Iyengar discloses wherein the database storing versions of an object repository is utilized to provide migration of data (e.g. col. 10, line 64 to col. 11, line 3; METHOD FOR LOCATING VERSIONED OBJECT WITHIN A VERSION TREE DEPICTING A HISTORY OF SYSTEM DATA AND PROCESS FOR AN ENTERPRISE, A METHOD FOR PACKING/UNPACKING C OPERATIONS TO/FROM RPC COMPATIBLE FORMAT USING THE RPC PROTOCOL TO OPERATE REMOTELY WITH AN OBJECT-ORIENTED REPOSITORY – col. 8, lines 3-46, *incorporated by reference* - Note: conversion from one metaformat to another and versioning of repository tree items reads on migration of data) - stored in the object repository.

As per claim 16, Iyengar discloses a method for providing generic migration of

previously stored data in a software development repository (Fig. 1) to reflect changes in an

application framework comprising:

providing a first meta-level (M2) for representing the application framework metadata;

providing a second meta-level (M3) for representing the M2 meta-level;

receiving application framework meta-data, the application framework metadata

specified utilizing constructs from the application framework meta-level (M2);

transforming the application framework meta-data into an intermediate representation as

a function of the application framework meta-level (M2) and the second meta-level level (M3);

generating the software development repository as a function of the intermediate

representation;

transforming the previously stored data into a format compatible with the generated

software development repository utilizing the intermediate representation.

The claim comprises all the limitations corresponding to those of claim 7, hence will

incorporate the respective rejection as set forth therein.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iyengar, USPN:

6,874,146.

As per claim 5, Iyengar does not explicitly discloses wherein the step of transforming the application framework into an intermediate representation is achieved using XSL ("Extensible Style Language") but the use of XSL to render a XML document was well-known at the time the invention was made. Based on the suggestion by Iyengar that in a future approach XSL can support XML editing (see col. 3, lines 45-50), it would have been obvious for one skill in the art at the time the invention was made to employ Iyengar's suggested method to render the XML because XSL is basically a programming language exclusively designed to support the grammar and syntax of XML according to W3C group, and using this XSL as shown by Iyengar' s remarks would make use of existing technological programming language, obviating thereby the need of improvising new editing means for XML rendering.

Response to Arguments

7.   Applicant's arguments filed 1/12/07 have been fully considered but they are not persuasive. Following are the Examiner's observations in regard thereto.

35 USC § 102(e) Rejection:

(A)   Applicants have submitted that Iyengar fails to teach or suggest generating a Repository (Appl. Rmrks pg. 6, bottom; pg. 7, middle). The limitation in question resides in the interpretation of language used to put forth the limitation; that is, 'generating the software development repository' has to be sufficiently dissected in understandable terms for one skilled in the art to construe what this phrase consisted of.

First, there is 'software development repository'. This has been visible from the claimed method (of *generating*) at the onset (see claim 1); and what constitutes this method (*generating a software development repository*) amounts to the steps comprising: a) *defining* ...; b) *receiving*

...M2; c) *transforming ... M2 ... M3*. The last step merely repeats the very purpose on the onset

in the claim preamble ('generating ... software development repository') by clarifying further

that the intended *generating* utilizes a previously recited *intermediate representation*; which

appears to be (i) either redundant a limitation, (ii) not limiting further an existing scope of a

claim (emphasis added), which is bordering on a USC 112, 2nd paragraph deficiency; and (iii) .

omission of (enabling) teaching between utilizing and *generating* bordering on 35 USC 112, 2nd

paragraph, or a *preemptive* claim language objection (emphasis added). The core of how this

repository has been generated has been construed from the above a) b) and c) steps. The

Applicants fail to show how the cited portions by Iyengar cannot anticipate those very steps or

teach away from one another; and so in a persuasive manner. Since the core of what constitutes

the method of *generating* a 'software development repository' has been addressed (as set forth in

the rejection), absent any argument raised against the Igenyar's cited portions in regard thereto, it

is deemed that this method has been fulfilled the above steps comprised in the claimed method.

Second, the 'generating the software development repository' step recites 'using the

intermediate representation'. The *intermediate representation* limitation has been mapped using

Iyengar (see Rejection) and no argument is seen raised against that effect. The cited parts of

Iyengar describes the intermediate data exchange format to address how a meta-model constructs

can be transported, ported or reconverted to generate further meta-models, with the intermediate

format being used as vehicle in the metadata porting process to capture further reusable metadata

(e.g. MOF metafile). The 'using the intermediate representation' limitation has been fulfilled in

more than one ways; e.g. from the MOF record via XMI stream to map of a related DTD format,

as in interchange representation to support and enabling storage of MOF metadata/model,

applications-related DTD.   Applicants fail to provide argument as to how the cited portions

addressing the 'using … representation' fail to establish anticipation of this very limitation.

As a whole, the above 'generating … software development repository' can be construed

(by way of broad reasonable interpretation of what is explicitly recited) as the following: the

steps a) b) and c) such as 'defining', 'receiving…M2', transforming … M3; AND utilizing the

intermediate representation. It is deemed Iyengar has taught all of the method as claimed,

included what the Applicants term as 'generating the software … utilizing … intermediate

representation'. In order for a claimed method to have proper merits, the body of the claim has

to provide sufficient patentable subject matter to support any such merits; and the above a) b) c)

including using the intermediate representation while performing step c) has been construed as

supporting this body of merits, and accordingly, have been properly addressed in the rejection.

Stating now that Iyengar fails to teach or suggest 'generating … software development

repository' amounts to ignoring the entire pertinent Rejection so to jump to one conclusion: the

whole *generating* method has been ignored by the Office Action.   Based on the analysis from

above, this amounts to an unjustified assertion of patentability; Applicant's arguments fail to

comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define

a patentable invention without specifically pointing out how the language of the claims

patentably distinguishes them from the references.

(B)   Applicants have submitted that Iyengar only teach listing of different type of repositories;

moving metadata to and from repositories; but cannot anticipate 'generating repositories' as

required (Appl. Rmrks pg. 7, bottom half). The generating of repository limitation has been

addressed above; and it should be clear that every single step action (or limitation) to embody or

characterize how this generating is implemented has been addressed in the rejection. A claim cannot be patentable solely based on an *intended use* or a *purpose* set forth at the onset or in the preamble, and expected it to be treated like in a vacuum. The 'generating ... software development repository' happens to be that onset purpose which is repeated needlessly at the end of the body (refer to section A). Applicants' retort against the cited portions of Iyengar when the rejection addresses each and every single limitation of the claim is deemed largely non-persuasive.

(C)   The argument against the limitations of claim 11 seems to deny the cited portions by Iyengar against 2 similar limitations of claim 1. That is, generating 'intermediate representation' and 'generating object repository' as a function of the above intermediate representation. The argument is now referred to section A for Iyengar discloses both of those limitations, whereas the Applicants are expected to identify for each of those cited part, how Iyengar does not teach (i) *intermediate representation* (Iyengar's generated XMI streams as cited are not unmoving dead data that are read-only stored block); (ii) generating of *repository of object* (what is generated by Iyengar is analogized to the amount of generated DTD, XML metadata and instances of MOF being modified to support what is construed as 'generating ... as a function ... intermediate representation'. All this has been discussed at length in section A. The argument is without a doubt deemed not persuasive.

The claims stand rejected as set forth in the Office Action.

Conclusion

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tuan A Vu whose telephone number is (272) 272-3735. The

examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (571)272-3756.

The fax phone number for the organization where this application or proceeding is

assigned is (571) 273-3735 (for non-official correspondence - please consult Examiner before

using) or 571-273-8300 (for official correspondence) or redirected to customer service at 571-

272-3609.

Any inquiry of a general nature or relating to the status of this application should be

directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

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system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan A Vu
Patent Examiner,
Art Unit 2193
March 23, 2007